AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A mems transducer comprising:

a printed circuit board comprising a plurality of layers, at least one layer comprising a conductive material and at least one layer comprising an insulating material;

a cover comprising a conductive layer, the printed circuit board and the cover forming at least a portion of a housing, the housing comprising an aperture for receiving a signal and an inner lining for providing a shield against an electromagnetic interference[[,]] being formed by the conductive layer and the at least one layer of a conductive material; ~~and~~

a spacer member between the printed circuit board and the cover, the spacer member cooperating with the printed circuit board and the cover to form the housing, the spacer member comprising a sidewall at least partially covered by a conductive material, the conductive material providing a portion of the inner lining; and

a transducer unit mounted within the housing.

2. Canceled.

3. (Currently Amended) The mems transducer of Claim [[2]] 1 further comprising a first layer of conductive adhesive for joining the spacer member to the cover.

4. (Previously Presented) The mems transducer of Claim 3 further comprising a second layer of conductive adhesive for joining the spacer member to the circuit board.

5. (Previously Presented) The mems transducer of Claim 1 further comprising an environmental barrier located within the aperture.

6. (Previously Presented) The mems transducer of Claim 5 wherein the aperture is within the cover, the cover comprising a nonconductive layer for providing the environmental barrier.

7. (Previously Presented) The mems transducer of Claim 5 wherein the aperture is located within the cover, the cover comprising a polymeric layer for providing the environmental barrier.

8. (Previously Presented) The mems transducer of Claim 5 wherein the aperture is located within the ed circuit board, the printed circuit board comprising a polymeric layer for providing the environmental barrier.

9. (Previously Presented) The mems transducer of Claim 5 wherein the environmental barrier comprises a polymeric material.

10. (Previously Presented) The mems transducer of Claim 9 wherein the polymeric material is a film.

11. (Previously Presented) The mems transducer of Claim 10 wherein the film comprises a polytetrafluoroethylene.

12. (Previously Presented) The mems transducer of Claim 1 wherein the conductive material comprises copper.

13. (Previously Presented) The mems transducer of Claim 1 wherein the printed circuit board comprises a plurality of layers of a conductive material and a plurality of layers of an insulating material.

14. (Previously Presented) The mems transducer of Claim 13 wherein one of the plurality of layers of a conductive material comprises a pair of lead pads for electrical connection to the transducer unit.

15. (Previously Presented) The mems transducer of Claim 14 wherein one of the plurality of layers of a conductive material provides a first electrical ground plane.

16. (Previously Presented) The mems transducer of Claim 15 wherein one of the plurality of layers of a conductive material provides a second electrical ground plane.

17. (Previously Presented) The mems transducer of Claim 16 wherein the first and second ground planes are electrically connected to the pair of lead pads.

18. (Previously Presented) The mems transducer of Claim 17 wherein one of the plurality of layers of a conductive material comprises a pair of connectors for electrical connection to an external transducer.

19. (Currently Amended) A mems transducer comprising:

a transducer unit; and

a housing substantially covering the transducer unit and providing protection against an electromagnetic interference, the housing comprising a substrate, a spacer and a cover forming an interior of the housing in which the transducer unit is disposed, each of the substrate, the spacer and the cover comprising a ~~first~~ layer of a non-conductive material and a ~~second~~ layer of a conductive material substantially covering the ~~first~~ layer of non-conductive material, the ~~second~~ conductive layers being electrically coupled and substantially forming an inner lining of the housing, the housing further comprising an aperture for receiving a signal into the housing.

20. (Currently Amended) The mems transducer of Claim 19 further comprising a ~~third~~ layer of a nonconductive material, the ~~third~~ layer substantially covering the aperture for providing an environmental barrier.

21. (Currently Amended) The mems transducer of Claim 20 wherein the ~~third~~ aperture covering layer comprises a polymeric material.

22. (Previously Presented) The mems transducer of Claim 21 wherein the polymeric material is a polytetrafluoroethylene.

23. (Previously Presented) The mems transducer of Claim 19 further comprising a retaining ring, the transducer unit engaging the retaining ring.

24. (Currently Amended) A silicon mems transducer comprising: a transducer unit;

a substrate including an upper surface having a recess formed therein, the transducer unit attached to the upper surface of the substrate overlapping at least a portion of the recess wherein a back volume of the transducer unit is formed between the transducer unit and the substrate; ~~and~~

a cover placed over the transducer unit, the cover including an aperture; and

a spacer disposed between the substrate and the cover, each of the substrate, the spacer and the cover comprising a layer of conductive material the conductive layers being electrically coupled and substantially forming an inner, shielding lining.

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25. (Currently Amended) A silicon mems transducer comprising:

a transducer unit;

a substrate including an upper surface for supporting the transducer unit;

a cover placed over a portion of the substrate, the cover comprising an aperture and an inner surface,

a spacer disposed between the substrate and the cover, the spacer having in inner surface; and

a portion of the cover inner surface and the spacer inner surface comprising a metallic material for shielding the transducer unit from an interference signal.

26. (Currently Amended) A mems transducer comprising:

a transducer unit;

a substrate including an upper surface for supporting the transducer unit;

a cover sealed over a portion of the substrate, the cover having an aperture for receiving a signal;

a spacer disposed between the substrate and the cover, the spacer having in inner surface; and

~~an~~ a cover inner surface and a spacer inner surface each comprising a shielding material for protecting the transducer from an interference signal.

27. (Currently Amended) A mems transducer comprising:

a transducer unit;

a substrate comprising a layer of an insulating material and a layer of conductive material, the substrate further comprising a surface for supporting the transducer unit;

a cover placed over a portion of the substrate;

a spacer disposed between the substrate and the cover; and

the cover and spacer each comprising a shielding material for protecting the transducer from an interference signal.

28. (Currently Amended) A mems transducer comprising:

a printed circuit board comprising a first insulating layer and a first conductive layer; a transducer unit supported by the printed circuit board; and

a cover over a portion of the printed circuit board and forming a housing therewith for protecting the transducer unit, the cover comprising an aperture, a second insulating layer, and a second conductive layer, a portion of the second conductive layer

exposed to a conductive spacer and electrically connected to a ground via [[the]] a conductive spacer for shielding the transducer from an interference signal.

29. (Previously Presented) A mems transducer comprising:

a printed circuit board comprising a first insulating layer, a first conductive layer, and an aperture;

a transducer unit; and

a cover over a portion of the printed circuit board and forming a housing therewith for protecting the transducer unit, the cover comprising a second insulating layer and a second conductive layer, a portion of the second conductive exposed to a conductive spacer and electrically connected to a ground via the conductive spacer for shielding the transducer from an interference signal.

30. (Previously Presented) A mems transducer housing for a silicon mems transducer, the mems transducer housing comprising:

an inner lining for providing a shield from an electromagnetic interference, the inner lining comprising an aperture adapted for receiving an acoustic signal;

a circuit board comprising a first insulating layer and a first conductive layer, the first conductive layer forming at least a portion of the inner lining; ~~and~~

a cover comprising a second conductive layer forming at least a portion of the inner lining; and

a spacer member disposed between the circuit board and the cover, the spacer member including, the spacer member comprising a sidewall including a third conductive layer forming a portion of the inner lining, wherein the first conductive layer, the second conductive layer and the third conductive layer are electrically coupled to form the inner lining.

31 – 38 Canceled.

39. (Currently Amended) The mems transducer of Claim 3 wherein the conductive adhesive may or may not form a continuous gasket between the spacer member and the cover.

40. (Previously Presented) The mems transducer of Claim 4 wherein the conductive adhesive may or may not form a continuous gasket between the spacer member and the circuit board.

41. (Previously presented) The mems transducer Claim 1 wherein the printed circuit board includes an upper surface having a recess formed therein, the transducer unit attached to the upper surface of the printed circuit board overlapping at least a portion of the recess wherein a back volume of the transducer unit is formed between the transducer unit and the printed circuit board.

42. (Previously presented) The mems transducer Claim 1 wherein the printed circuit board includes a pocket formed therethrough, the transducer unit attached to the printed circuit board and overlapping at least a portion of the pocket wherein a back volume of the transducer unit is formed by cooperation of the transducer unit and the pocket.